



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,186	02/13/2002	Tsutomu Tojo	501.36686CC2	6096

20457 7590 06/20/2003
STERLING W. CHANDLER
1300 NORTH 17TH ST., SUITE1800
ARLINGTON, VA 22209-9889

EXAMINER

GUHARAY, KARABI

ART UNIT	PAPER NUMBER
----------	--------------

2879

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,186

Applicant(s)

TOJO ET AL.

Examiner

Karabi Guharay

Art Unit

2879

-- **Th MAILING DATE of this communication appears on the cover sheet with the c rrespondence address --**

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment B, filed on 02 April, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11,13-15,17-20 and 22 is/are rejected.
- 7) ☒ Claim(s) 12 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Response to Amendment

Amendment B, filed on 02 April 2003, has been considered and entered.

Claim 21 is cancelled.

Claims 11 & 22 are amended.

Amendments of specification overcome the objection to the disclosure.

Amendments of drawings (Paper # 9) overcome the objections to the drawing.

Formal drawings of Fig 1a & Fig 4, including corrections are approved.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors.

In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 11, 13-15, 17- 20 & 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (US 5814930), and further in view of Suzuki et al. (US 6031326).

Referring to claim 11, Watanabe et al. disclose a color CRT comprising at least an envelope (see Fig 1) constituted by a panel portion 21, a neck portion 23 and a

funnel portion 22 connecting the panel portion and the neck, including an electron gun 31 contained in the neck portion, having focusing electrode 36 and an anode (G6), a fluorescent screen 24 formed on an inner surface of the panel portion, a deflection yoke 30 provided so as to surround a transition region between funnel portion and the neck portion, the focusing electrode 36 (see FIG. 9) have a first and a second division electrode 61, 62, respectively arranged with a gap in the axial direction of the tube, the second division electrode 62 is opposed to the anode, and in opposed surface thereof a single opening for passing plurality of the beams, the length of the second division electrode 62 is shorter than the length of the first divisional electrode (see FIG. 9), and the length of the second divisional electrode is not smaller than the diameter of the single opening in the direction at right angles to the in-line direction (see FIG. 9).

Watanabe et al. are silent to a speed-modulation coil surrounding the neck portion where at least first division and second division electrodes are disposed.

However, Suzuki et al. discloses a speed modulation coil (velocity modulation coil) arranged on the outer surface of the neck portion near the first division electrode 402 and second division electrode 401 of focus electrode 4 in order to improve the contrast, consequently enabling high quality display (Fig 4, lines 57 of Col.8 -line 15 of col. 9).

Thus, it would have been obvious to one skilled in the art to use the speed-modulation coil around the neck near at least first and second division electrode, as disclosed by Suzuki et al., in the device of Watanabe et al., since this will increase contrast of the display.

Regarding claims 13-15, Watanabe discloses that on the surface opposing the first division electrode 61, second division electrode 62 has individual electron passing openings for the respective beams (see Fig 9), wherein the individual openings are

smaller than the diameter of the single opening on the other surface of the second division electrode 62, individual openings are provided in at least two positions.

Regarding claims 17-18, Watanabe et al. disclose that the first division electrode has on its surface opposing the second division electrode individual openings for passing each electron beam and the diameter of the individual openings are smaller than the diameter of the single opening on the surface of second division electrode. (see Fig 9).

Regarding claim 19, Watanabe discloses that a focusing voltage that dynamically changes is applied to the second division electrode (lines 8-10 of column 11).

Referring to claim 20, it is unclear whether Watanabe et al. disclose a color CRT wherein the voltage difference between the first and the second divisional electrodes are less than 3 kV, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have difference in focusing voltage at most 3KV, since it has been held that discovering an optimum value of a result, effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Referring to claim 22, Suzuki et al. discloses speed modulation coil positioned on the neck portion extending in the region of first and second division electrode, but does not specifically exemplify that the speed modulation coil also extends said anode.

However, It is noted that applicant's specific extension of the position of the speed modulation coil upto anode does not solve any of the stated problems or yield any unexpected result that is not within the scope of the teachings applied. Therefore it

Art Unit: 2879

is considered to be a matter of choice, which a person of ordinary skill in the art would have found obvious to select the claimed position extending to anode.

Allowable Subject Matter

Claims 12, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable over the prior art of record if rewritten in independent form including all the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither shows nor suggests that the axial length of the second division electrode is not greater than 1.6 times the diameter of the single opening of the second division electrode in a direction at right angle with the in-line direction.

Response to Arguments

Applicant argues that examiners depends on Fig 9 which shows that the axial length of the second division electrode is not smaller than the diameter of the single opening in a direction perpendicular to the in-line direction (as claimed in claim 11). Applicant contends that "mere measurement of the drawings appear to be of little value" is of little value, absent any quantitative value in the specification.

In response, examiner respectfully wants to point out that drawings are considered a part of disclosure. In this particular case, applicants claims relative size of diameter of the opening with respect to the axial length of the electrode (not any quantitative measure), which is clearly shown in Fig 9.

Art Unit: 2879

However, *In Re Meng*, 492 F.2d 843, 847, 181 USPQ 94, 97 (CCPA 1974) states that claimed invention may be anticipated or rendered obvious by a drawing in a reference, whether drawing disclosure be accidental or intentional.

An accidental disclosure, if clearly made in a drawing is available as a reference. *In re William M. Bager et al.*, 18 CCPA 1094, 47 F.2d 951, 8 USPQ 484; *In Re Wagner*, 20CCPA 985, 63 F.2d 987, 17 USPQ 243.

Other arguments have been considered but are moot in view of the new ground(s) of rejection.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure : Kim et al. (US 6456080).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2879

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (703) 305-1971. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

K. G.

Karabi Guharay
Patent Examiner
Art Unit 2879



NIMESHKUMAR D. PATEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800